

Research Experiences for Undergraduates 2010

Program

The program will give ten undergraduate students the opportunity to work over the summer with faculty mentors on independent research projects with relevance for the New Jersey Pinelands and beyond. The Pinelands is a unique ecosystem with approximately 1.1 million acres that occupies 22 % of the New Jersey land area. It was the first area in the USA to be given state protection and Biosphere status. With its 850 different plant species, 39 species of mammals, 299 bird, 59 reptile and amphibian species and 91 fish species, the Pinelands acts as an important reserve for endangered plant and animal species.

In the first week of the program the students will do field work and reside in the Rutgers University Pinelands Field Station that offers an easy access to a wide range of characteristic pineland ecosystems, including pygmy pine forests, upland and lowland pine/oak communities, cedar swamps and aquatic and semi-aquatic habitats. After that the students will move to the main campus to perform their laboratory experiments and learn cutting-edge experimental techniques. The program offers a unique interdisciplinary research experience and the students will have the opportunity to work with their faculty mentor in a variety of different research areas (biochemistry, biophysics, botany, chemistry, ecology, evolution, genetics, microbiology, molecular biology, neurobiology and zoology). The program will also include field trips, workshops and seminars about scientific ethics, environmental justice, scientific writing and women in science.

Program dates

10 weeks, full time, May 31 –August 6, 2010

Participating laboratories

Dr. Georgia Arbuckle-Keil (Chemistry Department): Polymer chemistry

Dr. Daniel Bubb (Physics Department): Biophysics

Dr. John Dighton (Biology Department): Ecology, Nutrient dynamics

Dr. Dennis Grey (Field Station): Ecology, Nutrient dynamics

Dr. Joseph M. Martin (Biology Department): Neuroscience

Dr. Peter Palenchar (Chemistry Department): Biochemistry

Dr. William Saidel (Biology Department): Neuroanatomy

Dr. Daniel Shain (Biology Department): Evolution, Zoology

Dr. Nir Yakoby (Biology Department): Genetics

Dr. Kwangwon Lee (Biology Department): Fungal genetics



Participant support

The students will receive a stipend of \$ 4500, travel expenses, room and board on campus.

Application requirements

The students must be citizens of the United States or permanent residents. Students should be at least in their sophomore year and should have declared a relevant major. These are full time positions and students should not take any classes during the research program.

Application forms and requirements can be downloaded at reupines.camden.rutgers.edu or marine.rutgers.edu/pinelands/. Interested students should submit a completed application form, information about their interests and prior experiences, a short resume, transcripts from their college, and two letters of reference from a current or former science teacher or mentor.

Application deadline: March 20, 2010

For more information go to marine.rutgers.edu/pinelands/ or contact Dr. John Dighton (dighton@camden.rutgers.edu).

For more information visit also: www.nj.gov/pinelands/, www.pinelandsalliance.org/, www.njpinebarrens.com/, or www.njpinelandsanddownjersey.com/open/